**1a.** Anne has a horse which is tied to a pole with a 3.5 m piece of rope and her friend Laura has a donkey on a 2 m rope from the same center point. How much more area can Anne’s horse walk than Laura’s donkey.

**1b.** Anne’s horse gets moved to a new location. If the horse walks the biggest circle possible, she is able to walk 60ft. How long is her rope?

**2a.** In a circular park with a radius of 250 m there are 7 lamps whose bases are circles with a radius of 1 m. The entire area of the park has grass with the exception of the bases for the lamps. Calculate the lawn area.

**2b.** Cindy wants to go on a run. If she runs along the outer edge of the park, how far will she run?

**3a.** A circular fountain of 5 m radius lies alone in the centre of a circular park of 700 m radius. Calculate the total walking area available to pedestrians visiting the park.

**3b.** How much longer is the distance around the outside of the park than the distance around the fountain?